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January meeting

Monday, January 16th at 7 pm

At the January meeting our 2023 Board will be sworn in. We will also have a silent auction and raffle.

Dues are due



Please bring your 2023 dues to the meeting. Your dues help maintain the roof and heat for the clubhouse as well as pay for our lapidary shop. Starting in January, only those who have paid their dues can sign up for the shop.

Please bring a check or cash to the meeting:

- Individual: \$20
- Student: \$15
- Family: \$45

Banner image

The banner image is a garnet on quartz crystals by [Orbital Joe](#) and is published under the license CC BY-NC-ND 2.0.

Lepidolite

Lepidolite is a mica indicating that the crystals readily split into thin elastic plates. That means it has perfect basal cleavage.



Lavender lepidolite with crystal plates forming books. From the Himalaya Mine, Mesa Grande District, San Diego County, California. Photo by Rob Lavinsky, iRocks.com. License: [CC BY-SA-3.0](https://creativecommons.org/licenses/by-sa/3.0/)

Lepidolite basics

Category: Phyllosilicate

Mineral group: mica

Formula: $K(\text{Li},\text{Al})_3(\text{Al},\text{Si},\text{Rb})_4\text{O}_{10}(\text{F},\text{OH})_2$

IMA symbol: Lpd

Crystal system: monoclinic

Crystal class: prismatic

Crystal habit: tabular to prismatic

Cleavage: perfect

Fracture: uneven

Mohs scale: 2.5 – 3

Luster: vitreous to pearly

Streak: white

Diaphaneity: transparent to translucent

Pleochroism: almost colorless, pink, pale violet

Color: pink, light purple, purple, rose red, violet gray, yellow, white, colorless

Specific gravity: 2.8 – 2.9

Lepidolite is the most common mineral with lithium, although sometimes it contains aluminum, instead of lithium. It is also a major source of rubidium, an alkali metal. Because lepidolite has a restricted range of composition rather than a strict chemical formula, not all lepidolite contains rubidium.

Rockhounds often favor polished lepidolite that has a pinkish or purplish color with sparkling mica within. This mineral naturally occurs in a variety of colors, commonly pink, purple, and red, but also gray. Those colors are caused by manganese impurities. In turn, pink and red aventurine specimens sometimes get their color from flakes of lepidolite. Yellow and colorless pieces of lepidolite are rare.



Rare yellow lepidolite by Rob Lavinsky,
iRocks.com; [CC BY-SA-3.0](https://creativecommons.org/licenses/by-sa/3.0/)

The image at the left is a photo of rare yellow lepidolite. Rob Lavinsky describes it here:

"The translucent crystals on these specimens, which of course are mica and thus very thin sheets, are packed so densely that the specimens look to be almost a solid translucent yellow mineral, except for the thin crystal edges at the surface that show that what you are really looking at are the edges of thousands of tightly packed sheety crystals. Beautiful stuff!"

This specimen is from Itinga, Minas Gerais, Brazil.

Size: 6.1 x 4.9 x 3.1 cm

Mineral formulas

We are familiar with chemical formulas for minerals, for example SiO_2 is the formula for quartz. The formula tells us that each quartz molecule has one silicon atom and two oxygen atoms chemically bound together. This is an example of a strict composition. Every quartz molecule will be made of silicon and oxygen in a 1:2 ratio.

In reading about minerals, you have probably also seen more complex formulas, such as the one for olivine: $(\text{Mg,Fe})_2\text{SiO}_4$. Rather than having a strict composition, olivine has a restricted range of composition.

Restricted range of composition

Some minerals can be comprised of slightly different elements with a limited range of possibilities. Their formulas reflect the possible variations. Olivine is one such mineral, and it can be made with either magnesium (Mg) or iron (Fe) with one of these formulas: Mg_2SiO_4 or Fe_2SiO_4 . You can see that regardless of whether the olivine is made of magnesium or iron, that element lends two atoms to the molecule. The ratio of elements is 2 Magnesium or Iron to 1 Silicon to 4 Oxygen. Lepidolite is even more complex: $\text{K}(\text{Li,Al})_3(\text{Al,Si,Rb})_4\text{O}_{10}(\text{F,OH})_2$. There are three parts of the formula with limited ranges of elements.

Lapidary Shop

Our lapidary shop is reserved for members who have paid their dues. Inside are five slab saws, three CabKing™ machines for polishing cabochons, and two trim saws.

Sign up for shop time

All shop users must sign up for a time slot at least a day before the session. On their first visit, new shop users will be trained on shop procedures and safety before being able to use any equipment.

You can [sign up for shop time online](#). The system will send you a confirmation email which you should save until after your session. You will need the email if you want to cancel your reservation. Each Thursday we have shop sessions available:

- Session 1: 3:00 to 5:30 pm
- Session 2: 5:30 to 8:00 pm (except on the first Thursday of each month)

How to cancel

If you sign up for shop time online and later realize you won't be able to make it to the session, you need to cancel your reservation no later than the day before the session. This enables someone else to sign up. If you do not cancel, you will be charged for the session. To cancel, click the link in the confirmation email you received after you signed up.

What to bring

You need to bring \$7 (cash or check) to pay for the session. Additionally, you might like to bring these:

- Face mask to not breathe rock dust or for Covid protection
- Hearing protectors

Before you leave the shop

The shop stewards are volunteers who generously give 6 hours a week to enable us to use the tools. Before you leave a tool station, please wipe it down and leave it in the same condition as you found it. If you discover a problem with a saw or tool, please let the Shop Steward know.

Shop Stewards

Paul Strawn
Rich Osborne
Bruce Samuels

Email:
Shop@maplewoodrockclub.com



To everyone born in January,

Happy Birthday!

We hope sunshine and
happiness filter down to
you on your birthday!

Your birthstone is garnet which we think
of as a beautiful red gemstone, but it is
also found in orange, green, yellow, and
violet colors.

Garnets are more than pretty
adornments. They play an important role
in filtering impurities out of water.

Juniors – Rockhounding



Are you a rockhound? A rockhound is someone who has fun digging out and collecting rocks. Are rocks awesome because they were made by a volcano, or by pressure deep underground, or by layers of silt on the bottom of a lake slowly hardening over millions of years?

Or maybe, you like rocks just because they are pretty. Rocks can come in every color of the rainbow plus, brown, black, white, and clear. Sometimes they sparkle or glisten. Sometimes they reflect gorgeous colors that change when you turn the rock in your hand. The dots, swirls, and patterns of colors can add to their beauty.

Whatever the reason you like rocks, you probably also like to go out rockhounding sometimes. There are many things you might want to bring. Here are some ideas.





Staying safe

Whenever you rockhound, you should prepare for possible injuries. Here are some things you might need to protect yourself:

- First aid kit
- Sun screen and hat or if it's not sunny, warm clothes and a rain jacket
- Water resistant boots or hiking shoes for walking over uneven rocks and in creeks
- Hard hat if you will be searching in caves or where rocks might fall on you
- Gloves
- Goggles, for breaking rocks, because a tiny chip can fly into your eye

Digging and breaking

- Hammer and chisel for breaking a rock out of a crack or crevice
- Rock pick to pry apart rocks or to chip off pieces
- Pry bar to roll big rocks
- Shovel
- Bucket to hold tools and rocks

Getting there

- Plan where you will go and download a map if the area might not have cell phone service.
- Make sure that rock collecting is allowed in the place you want to go.
- Compass and map to find the collection site.

Identifying and examining

- A rag and spray bottle of water can help clean a rock so you can examine it
- Magnifying glass
- Miscellaneous small tools: knife, trowel, and colander
- Magnet to learn if a rock has iron
- Rock identification book
- Notebook and pen or pencil for writing notes

Links to more tips

You can find more information about rock hounding at these links:

- *Rockhounding tools for safe productive mineral collecting*
<https://stonebridgeimports.com/a/700-rockhounding-tools-for-safe-productive-mineral-collecting>
- Getting kids rockhounding
<https://rochester.kidsoutandabout.com/content/getting-kids-rockhounding>
- *Rock collecting guide for kids*
<https://www.rockngem.com/a-rock-collecting-guide-for-kids/>
- *Can I keep this? A guide to collecting on public lands:*
<https://www.blm.gov/sites/blm.gov/files/docs/2021-10/Can%20I%20Keep%20This%202021%20-%20508%20Final%20Version.pdf>
- *How to Identify Rocks*
<https://www.youtube.com/watch?v=cyBLmW5k06c>

Rockhounding links for parents

- Here is a page with information for your parents:
<https://beyondpenguins.ehe.osu.edu/issue/rocks-and-minerals/rock-hunting-with-children>
- Recreational Mineral Collecting by the US Forest Service:
https://www.fs.usda.gov/detail/r6/recreation/regulations/?cid=fsbdev3_022266

What would you bring?

Here are some things you might bring with you on a rockhounding trip. Can you think of why someone might bring each item? The answers are on the next page.



What would you bring? Answers

Here are some ideas for why you might bring the things pictured on the last page when you are going rockhounding.

- **Spray bottle:** A spray bottle and a rag can help you clean off rocks you find. When they are clean and wet their colors are usually more brilliant, and it will let you see fracture lines and crystal structures better.
- **Freckles:** You might bring your dog, Freckles, because it's fun to have your dog along when you go on outdoor adventures and because he would love it.
- **Boots:** Good rocks are often found in creeks and the ground is often wet or slippery. Water resistant boots with good non-slip treads are handy.
- **Hard hat and gloves:** Sometimes we look for rocks at the base of a rock cliff or on a steep rocky slope where rocks can become loose and tumble down on top of us. The hard hat will protect your brainy noggin. The gloves can feel good when the rocks are rough and jagged.
- **Bucket:** You will want to have something to put your rocks in. Pockets fill up too fast!
- **Trowel:** A trowel and shovel are handy for digging. You might also want to bring a pickaxe or prybar to break apart rocks and hard dirt.
- **Magnet:** If you want to test a rock to see whether it contains a lot of iron, bring a magnet.
- **Safety goggles:** Whenever you are breaking rocks or digging in a way that pieces of rock or dirt fly out, goggles can protect your eyes.
- **Apple:** You might get hungry and thirsty. Bringing a snack and water bottle might let you dig for rocks longer because you won't be getting too *hangry*. A bottle of hand sanitizer to wash up first is also a good idea.

Washington State Mineral Council

Our club, along with many other rock and gem clubs in the state, is a member of the Washington State Mineral Council. This organization helps us by

- advocating for access to public lands
- advocating for beneficial land use policies
- compiling and sharing maps and other information
- publicizing shows and field trips so members learn about and can participate in events at other clubs

Read their latest [Newsletter](#).

Wish you could get paid for cleaning?



The Board is looking for someone who would like to receive a little money for cleaning our main room, the bathrooms, and kitchen, if needed. This would involve sinks, floors, and toilets, and whatever else is needed to bring the space back to how we like it. Usually, it takes about 3 or 4 hours, and we will pay \$60 per cleaning session, rather than by the hour.

We would like the cleaning to be done soon after big events, like our December Party or the shows. We need to be sure that the building is ready for renters. Our member, Paul Anderson, has been taking care of this for us without pay for many years, and we are all grateful. Everyone appreciates coming into a clean building.

If you think you might be interested, please contact us at info@maplewoodrockclub.com.

Our 2023 Board

At our January meeting, the 2023 Board will be sworn in. The Board meets once a month to plan, set actions in motion, and review what has been happening in order to keep our club successful. All members are welcome at the Board meetings on the first Thursday of each month. Our 2023 Board will be

President: Ali Rizvi

Secretary: Carla James

Treasurer: Bruce Samuels

Members at Large:

Nancy Ross

Rich Osborne

Nancy Samuels

Michelle McGraw

Rock shows near and far

Date and Time	Host and Location	Details
Feb. 11, 9 am – 5 pm Feb. 12, 9 am – 5 pm	Whidbey Island Gem Club The Center in Oak Harbor 51 Jerome St. Oak Harbor, WA	
Feb. 25, 10 am - 6 pm Feb. 26, 10 am - 5 pm	Idaho Gem Club Expo Idaho 5610 Glenwood Boise, ID	
Mar. 4, 10 am – 6 pm Mar. 5, 10 am – 5 pm	East King County Club Pickering Barn 1730 10 th Ave. NW Issaquah, WA	
Mar. 4, 10 am – 6 pm Mar. 5, 10 am – 5 pm	Owyhee Gem & Mineral Society O’Conner Field House 2207 Blaine Caldwell, ID	\$5 adults Kids under 11 are free!
Mar. 3, 10 am – 5 pm Mar. 4, 10 am – 5 pm Mar. 5, 10 am – 5 pm	Tualatin Valley Gem Club Forest Grove National Guard Armory 2950 Taylor Way Forest Grove, OR	\$1 adults Kids 12 and under are free!
Mar. 3, 9:30 am – 5:30 pm Mar. 4, 9:30 am – 5:30 pm Mar. 5, 9:30 am – 5 pm	Oregon Agate and Mineral Society OMSI 1945 SE Water Ave. Portland, OR	
Mar. 10, 9 am – 6 pm Mar. 11, 9 am – 5 pm	Panorama Gem and Mineral Club Stevens County Fairgrounds 317 West Aster Colville, WA	

Date and Time	Host and Location	Details
Mar. 11, 9 am – 6 pm Mar. 12, 10 am – 5 pm	Northwest Montana Rock Chucks Flathead County Fairground Expo Building 265 North Meridian Road Kalispell, MT	\$2 high school and up
Mar. 18, 9 am – 6 pm Mar. 19, 10 am – 5 pm	Hellgate Mineral Society Hilton Garden Inn 3700 North Reserve St. Missoula, MT	\$3 Kids under 14 are free with an adult!
Mar. 24, 10 am – 6 pm Mar. 25, 10 am – 6 pm Mar. 26, 10 am – 4 pm	Rock Rollers Club of Spokane Spokane County Fair and Expo Center N. 604 Havana Spokane, WA	\$8, adults \$7, seniors & military Scouts in uniform and kids under 12 are free!
Mar. 25, 10 am – 5 pm Mar. 26, 10 am – 5 pm	SE Idaho Gems & Mineral Society Bannock County Fairgrounds 10588 Fairground Dr. Pocatello, ID	\$3 12 and under are free with an adult!
Apr. 1, 10 am – 6 pm Apr. 2, 10 am – 5 pm	Sweet Home Rock & Mineral Society Sweet Home HS Activity Gym 1641 Long St. Sweet Home, OR	
Apr. 14, 9 am – 5 pm Apr. 15, 9 am – 5 pm Apr. 16, 10 am – 4 pm	Willamette Agate & Mineral Society Polk County Fairgrounds 520 S. Pacific Hwy Rickreall, OR	\$5 11 and under are free with an adult!

Date and Time	Host and Location	Details
Apr. 21, 10 am – 4 pm	Yakima Rock and Mineral Club Central Wash. State Fair Ground Modern Living Building 1301 South Fair Avenue Yakima, WA	\$6
Apr. 22, 10 am – 5 pm		Students: \$2
Apr. 23, 10 am – 4 pm		12 and under are free!
Apr. 29, 10 am – 5 pm	Lakeside Gem and Mineral Club Benton Franklin County Fairgrounds Building 2 1500 S. Oak Kennewick, WA	\$5
Apr. 30, 10 am – 4 pm		12 and under are free!
Apr. 29, 10 am – 5 pm	West Seattle Rock Club Alki Masonic Temple 4736 40 th Ave. SW Seattle, WA	
Apr. 30, 10 am – 5 pm		
Apr. 29, 10 am – 5 pm	Grays Harbor Geology & Gem Society Grays Harbor Fair Grounds 43 Elma-McCleary Road Elma, WA	
Apr. 30, 10 am – 4:30 pm		
May 13, 10 am – 5 pm	Hatrockhounds Gem & Mineral Society Eastern Oregon Trade & Event Center 1705 East Airport Road Hermiston, OR	\$3
May 14, 10 am – 4 pm		12 and under are free!
May 19, 10 am – 5 pm	Mt. Hood Rock Club Kliever Memorial Armory 10000 NE 33 rd Dr. Portland OR	
May 20, 10 am – 5 pm		
May 21, 10 am – 3 pm		

Date and Time	Host and Location	Details
May 27, 10 am – 6 pm May 28, a	Everett Rock and Gem Club Evergreen State Fairgrounds 18359 Cascade View Drive Monroe, WA	
June 16, 10 am – 5 pm June 17, 10 am – 5 pm June 18, 10 am – 4 pm	Lower Upmqua Gem & Lapidary Society Reedsport Community Building 451 Winchester Ave. Reedsport, OR	
Aug. 3, 10 am – 5 pm Aug. 4, 10 am – 5 pm Aug. 5, 10 am – 5 pm Aug. 6, 10 am – 4 pm	Billings Gem and Mineral Club Billings Hotel & Convention Center 1223 Muldowney Lane Billings, MT	\$5/day or \$15 4-day pass Kids under 12 are free with an adult!
Aug. 18, 9 am – 5 pm Aug. 19, 9 am – 5 pm Aug. 20, 10 am – 4 pm	Willamette Agate & Mineral Society Polk County Fairgrounds 520 S. Pacific Hwy. Rickreall, OR	
Sep. 9, 9 am – 5 pm Sep. 10, 10 am – 4 pm	Clallam County Gem and Mineral Association Vern Burton Community Center 308 East 4 th St. Port Angeles, WA	
Oct. 6, 10 am – 6 pm Oct. 7, 10 am – 6 pm Oct. 8, 10 am – 5 pm	Portland Regional Rock and Gem Club Wingspan Event Center 801 NE 34 th Ave Hillsboro, OR	\$7 Kids under 12 are free with an adult!

Date and Time	Host and Location	Details
Oct. 7, 10 am – 5 pm	Marysville Rock and Gem Club	
Oct. 8, 10 am – 5 pm	Evergreen State Fairgrounds	
	Display Bldg. #500	
	14405 179 th Ave SE	
	Monroe, WA	

Grit for sale

The Shop Stewards sell grit on Thursdays when the shop is open. Please let them know a day ahead that you will stop by to purchase grit.

To contact the Shop Stewards, email shop@maplewoodrockclub.com

Each grit package is \$4, and this is what they sell:

- 1 lb of 60/90
- 1 lb of 120/220
- ¾ lb of pre-polish
- ½ lb of polish

Connect with us

Website: <http://www.maplewoodrockclub.com/>

Facebook page: Maplewood Rock & Gem Club

Facebook group for members: MRGC Sales and Trades

Email us: info@maplewoodrockclub.com

Address: 8802 196th St SW, Edmonds, Washington 98026

Our Board

Our club is run entirely by volunteers; and we are grateful for the time, energy, and expertise they give to our community.

President: Ali Rizvi

Secretary: Carla James

Treasurer: Bruce Samuels

Members at large: Nancy Ross, Rich Osborne, Nancy Samuels, and Michelle McGraw



Image license attributions

We use abbreviations in the license attributions. Here are the definitions.

CC: Creative Commons license

BY: attribute the author, link to the license, and indicate if changes were made.

SA: share alike - If you publish the image, you must use the same license.

ND: no derivatives - You may not alter the image.

NC: non-commercial use - You may not use the image for commercial use.

3.0 or other number: version of the license

Sister Club in Australia

Our sister club in Australia is the Atherton-Tableland Mineral & Lapidary Club in Tolga, Queensland. Connect to them on Facebook:

www.facebook.com/groups/197340266987276

One hundred million years ago the eastern edge of the Australian continent extended much farther to the east. Tectonic forces broke off and submerged the eastern section into the ocean while a rising mantle caused the remaining land to lift.

Beginning 4 million years ago large basalt flows filled river valleys and formed a relatively flat landscape. Following that period the volcanoes became more gaseous spewing lava in violent eruptions. This landscape is now called the Atherton Tablelands. You can learn more on Wikipedia.



News to share?

Did you go rockhounding? Have you acquired a beautiful new specimen? Please send stories, images, or simply ideas for articles that Nancy would write to the newsletter editor, Nancy Samuels at MRGC@nancysamuels.com.

This issue

Maplewood Rock and Gem Club
News

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